

REMARKS

Claims 1 - 5 are pending in this application. By this Amendment, Claims 1, 3, and 5 are amended to more particularly point out and distinctly claim the invention. Clear support for the amendments to Claim 1 is found in the paragraph overlapping pages 3 and 4 of the current Specification. The amendment to Claim 3 is clearly supported in Figure 1. The amendment to Claim 5 is a semantical correction. No new matter is being added.

Correction of the Abstract was required. A clean copy of the Abstract as amended is attached hereto. It complies with the word count limitation. No new matter is added.

Claims 1 – 3 and 5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Moulthrop, Jr. et al. US 6,383,361 B1 (Moulthrop) in view of Cisar et al. US 5,635,039 (Cisar). In addition, Claim 4 was rejected over the same combination together with Murphy et al. US %,460,705 (Murphy).

Claim 1 is directed to a water electrolysis system comprising certain specific structure. A water electrolysis means including a pair of catalyst layers and an electrolyte membrane sandwiched by both of the catalyst layers, is provided for electrolyzing pure water supplied to said catalyst layers, and for generating hydrogen from one catalyst layer and a gas/liquid mixture of oxygen and pure water from the other catalyst layer. A gas/liquid separating means is provided for separating pure water from the gas/liquid mixture of oxygen and pure water both brought out from said water electrolysis means. A backflow means is provided for making the pure water, separated

by said gas/liquid separating means, flow back to said water electrolysis means. In this system, the gas/liquid separating means is directly connected to a discharge opening through which the gas/liquid mixture of oxygen and pure water is brought out from the water electrolysis means without any intermediate piping (emphasis added). That is, the gas/liquid mixture directly flows into the gas/liquid separating means through the discharge opening.

As indirectly admitted by the Examiner in the last sentence on page 4 of the Office Action, Moulthrop fails to teach or suggest that the gas/liquid mixture flows into the gas/liquid separation means through the discharge opening without any intermediate piping. Cisar fails to cure this deficiency.

Absent any teaching or suggestion of this specific feature of the invention, Claim 1 is clearly allowable over these references.

Claim 3 adds the further feature that the purifying means shares a common wall with the electrolysis means. That is, as can be seen in Figure 1, they are directly adjacent each other, not merely in the same vicinity. There is no such teaching or suggestion in the references of record.

Claim 5 claims that the gas/liquid separating means comprises a filter means for separating oxygen and pure water from each other. While Moulthrop does show a filter 84, it is for filtering particulates out of the water. There is no teaching of the function of separating oxygen and pure water from each other with a "filter means".

In the rejection of Claim 4, the Examiner cited Figure 6 of Murphy (identical to Figure 6 of Cisar) for the teaching of the deionized water intake pipe 86 connected to

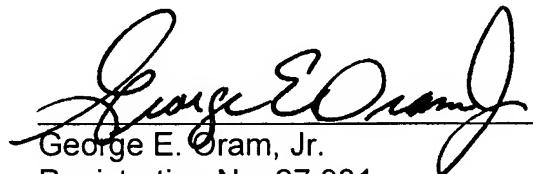
the gas/liquid separator. However, Claim 4 depends from Claim 1, which is allowable for the reasons noted above. Murphy also fails to cure the basic deficiency of Moulthrop.

Clear differences exist between the present invention as claimed and the prior art relied upon by the Examiner. These differences are more than sufficient that the present invention would not have been obvious over that prior art.

Consequently, for all the reasons noted above, an early reconsideration and an early Notice of Allowance are respectfully requested.

In the event that this paper is not considered to be timely filed, the applicants respectfully petition for an appropriate Extension of Time. Any fees for such an extension or any fee deficiency may be charged or any overpayment may be credited to Deposit Account No. 01-2300 **referencing Docket No. 101175.00034.**

Respectfully submitted,



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Enclosure: Abstract of the Disclosure